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ABSTRACT

The Verbal Reaction Behavior Log (VRBL) is an instrument used for identification of teacher and pupil verbal behavior. The purposes for its use are (a) an increase in pupil-teacher interaction, (b) an enhancement of indirect and pupil-centered instruction, (c) focus of attention on the logic of classroom discourse, and (d) increased use of positive reinforcement in the classroom situation. The three major verbal or instructional categories in the VRBL are cognitive, skill, and affective. These are subcategorized into (a) concepts and/or facts, (b) classifications, (c) applications, (d) directions, (e) repetitive practice, (f) varied practice or performance, (g) personal involvement, (h) positive reinforcement, and (i) negative reinforcement. Research on the VRBL has emphasized the stability of the three major categories and modification of student-teacher behavior in desired directions using both VRBL and Flanders Interaction Analysis. Research has also examined the relationship between verbal behavior and pupil achievement. Results show that verbal behavior has had a significant effect on student achievement. (Six references are included along with a copy of the VRBL.) (BRB)

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A Taxonomy-Based Verbal Performance Instrument

At a time when there is an increasingly pointed interest in behaviorally defined objectives in teacher education, it may be in order to describe the development of an instrument found to be practical for the identification of teacher and pupil verbal behavior. The focus of this technique is on instructional procedures as they relate to teaching directed toward cognitive, affective, and psychomotor skill goals. The Verbal Reaction Behavior Log (VRBL) has been found to be useful in identifying what has occurred in an observed situation and also in modifying teacher behaviors in such directions as the greater use of positive reinforcement and higher-level cognitive discourse. The direct purpose of the several procedures used for describing teacher and pupil behavior in the classroom is to increase pupil-teacher interaction, enhance indirect and pupil-centered instruction, focus attention on the logic of classroom discourse, or stimulate the greater use of positive reinforcement. By attempting to make a direct assess-

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ment of instructional content, the VRBL takes a direct approach to the problem of improvement of instruction.[1]

Preparation of the Log

The long-used procedure of classifying instructional objectives under the headings of understandings, skills, and attitudes received an impetus from the publication of the well-known booklets by Bloom, Krathwohl, and others. The Simpson publication (6) added much to the understanding of the psychomotor area. The author of the VRBL sought to develop a procedure that would ascertain pupil and teacher verbal behavior as related to the three taxonomic instructional objectives. He wanted an instrument that was efficient and yet simple enough so that it could be utilized with reasonable success to fulfill the immediate needs of the instructional supervisor, the student-teaching supervisor, or the teacher seeking to gain immediate insight into his own instructional characteristics. Working closely with classroom and student teachers and studying their teaching procedures, he classified a large number or procedures of instruction in apparent relationship to the classification of instructional objectives. As expressed in an earlier publication:

> If objectives can be identified as cognitive, skill, and affective, it should follow that related educational experiences should be so classified if we are, indeed, trying to relate the experiences of learners

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1. Acknowledgment is made of particular contributions from the work of Withall, Flanders, Medley and Mitzel, and Smith, all so well known they need no further reference here. In addition, a number of colleagues and graduate students have made contributions that have assisted in the development of the VRBL.

> to the goals...set for them. With this in mind an effort was made to classify verbal behavior in the classroom by both teacher and pupils which seemed to be most closely related to the achievement of cognitive, affective and skill objectives (3).

Working partly from an observational base and partly by armchairing, long lists of teacher and pupil verbal behaviors that seemed to fit under the three given headings were gradually reduced by combining similar ones. A list of nine behaviors, with three types of verbal expression under each of the major categories, finally emerged. (See Figure I.) Identification of the occurrence of verbal behavior is made by simply making frequency tallies, which constitute the raw data, in the appropriate rows and columns; each tally represents a verbal behavior, with the spoken sentence or its equivalent used as the unit. These tallies, indicating how frequently a given kind of verbal behavior has occurred in the given situation, may then be subjected to desired statistical treatment.

Stability of the Three Major Categories. Leonard (2) conducted a study in fifth-grade classrooms, giving three training sessions plus two practice sessions with films, to twelve observers working in teams of four, making three visits of thirty minutes each to record the verbal behavior of twelve randomly selected student teachers. She found that these observers could, with this training, agree closely on classification of verbal behavior under teacher talk, pupil talk, and asking or telling. They attained a lower, but relatively satisfactory, consistency of agreement about cognitive, skill, or affective verbalization.

Using the VRBL in Research

A number of studies have used the VRBL to probe relationships between teacher and pupil verbal behavior and other educational variables. Amershek (1) trained three observers, who tallied verbal behavior in the classrooms of twenty-three female student teachers in grades three to six, attaining an interobserver reliability of r = 0.91. She found great variations in student teacher verbal patterns, cognitive behavior ranging from 36 to 71 percent; skill, from 9 to 37 percent; and affective, from 10 to 28 percent of each one's total verbal behavior. Total verbal behavior for all student teachers and pupils in observed lessons was 49+ percent cognitive, 27 percent skill, and 23 percent affective. Student teachers from the top fourth of the undergraduate educational psychology final examination and the top one-fourth of Minnesota Teacher Attitude Inventory scores showed significantly greater use of cognitive behavior than did those from the bottom quarters, but the latter showed greater use of the skills category. No differences were found in the use of affective verbalization. Student-teaching grades and verbalization were independent. Pupil and student teacher verbal behavior by category correlated for cognitive 0.52, skill 0.70, and affective 0.32.

Modification of Teaching Behavior Pattern. Rebstock (4) divided twenty-six student teachers in secondary social studies into two equal groups and gave systematic training in the use of Flanders Interaction Analysis and the VRBL to the experimental group. Stu-

dent teachers observed each other, recorded verbalization on the VRBL and discussed the results. The researcher observed them three times, recorded the VRBL pattern, and discussed the records with them. He then trained three observers and obtained VRBL patterns on all the student teachers, both experimental and control, during one 30-minute social studies lesson. The experimental student teachers showed significantly higher proportions of verbal behavior (see Figure I) than did the controls on:

(1) asking questions on the level of principles and explanations (I,2,b)

(2) securing pupil telling on the level of principles (I,2,b)

(3) using more applications and creative ideas (I,3,a)

(4) asking more questions about directions and instructions (II,4,b)

(5) securing greater positive reinforcement from both student teachers and pupils (III,8,a and c)

(6) securing greater personal involvement from both student teachers and pupils (III,7,a and c)

On the other hand, the control group student teachers' classes showed greater relative incidence of:

(1) student teacher telling on fact level (I,1,a)

(2) pupil questions about principles and major ideas (I,2,d)

(3) student teacher giving of directions and instructions (II,4,a)

(4) use of negative verbal behavior by student teachers and pupils (III,9,a and c).

The study lends support to the modification of student teacher behavior in desired directions, such as higher-level cognitive discourse and greater use of positive reinforcement, by the use of such procedures as Flanders Interaction Analysis and the VRBL.

Verbal Behavior and Pupil Achievement. Sanford (5), seeking to examine the relationship between verbal behavior and pupil achievement, the most significant criterion for evaluating patterns of verbal interaction, trained three experienced teachers in the use of the VRBL. These observers gathered data on six student teachers during sixteen complete high school American history class periods and then tested the pupils on history achievement in lower-level (facts, terms, dates) and upper-level (understandings, analysis) cognitive learnings, with adjustment for intelligence and previous history achievement.

Sanford found that pupils in classes with more cognitive verbal behavior on the level of cognitive I, 3 (applications, etc.) achieved significantly higher in general achievement, factual achievement, and higher-level learnings than did the pupils in the classes with greater frequency of verbal behavior on cognitive level I, 2 (classifications, etc.). The latter, in turn, achieved higher than did those in classes with the greater proportion of verbalization on cognitive level I, 1 (facts and minor ideas). In the affective category, Sanford found that pupils in classes with more verbalization on affective level III, 8 (positive reinforcement) achieved higher in all categories than did those in classes where there

was more affective level III, 9 (negative reinforcement). He found no achievement differences to be associated with variations in teacher talk versus pupil talk, nor with teacher or pupil telling or asking questions.

Approaches such as those utilized by the VRBL, in which an attempt is made to modify teacher verbal behavior in directions proved to be associated with higher pupil achievement, should be of interest to educators concerned with performance-based teacher education programs.

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Classroom Verbal Reaction Behavior Log
(VRBL)

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Broad Instructional Objective or Verbal Category	Verbal Expression of	Source and Classification of Verbal Behavior by			
		Teacher		Pupil	
		Telling a	Asking b	Telling c	Asking d
I. Cognitive	1- facts, terms, names; concepts; minor ideas and associations				
	2- classifications; principles, generalizations; explanations; major ideas and relationships				
	3- applications; problem solutions, extrapolations, creative ideas				
II. Skill	4- directions, instructions				
	5- drill, repetitive practice or performance				
	6- altered or varied practice or performance				
III. Affective	7- personal involvement or identification				
	8- positively toned or supportive statements of reinforcement or encouragement				
	9- negatively toned reinforcement or verbalization; sarcasm, anger, punishment				

Figure I

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